

CLAIMS

What is claimed is:

1. A method of monitoring resource units in a group, comprising:
 - (a) providing a group of resource units;
 - 5 (b) determining a thickness of one or more of the resource units; and
 - (c) indicating when the group of resource units reaches a predetermined size after one or more of the resource units has been moved from the group and responsive to the determination of thickness in step (b).
- 10 2. The method of claim 1 wherein the group of resource units is a stack of sheet articles in a mail insertion system.
3. The method of claim 1 further comprising detecting the size of the group of resource units prior to any resource units being moved from the group.
4. The method of claim 3 wherein detecting the size of the group of resource
- 15 units includes providing a sensor for determining when the size of the group of resource units is less than a second predetermined size.
5. The method of claim 1 wherein determining the thickness further includes providing a device for measuring the thickness of the one or more resource units as the one or more resource units are moved from the
- 20 group.
6. The method of claim 1 wherein the resource units are in a stack, and the resource units are moved from the group by removing resource units from the bottom of the stack.
7. The method of claim 1 wherein indicating when the group of resource
- 25 units reaches a predetermined size includes:

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- (a) detecting when the size of the group of resource units is equal to a second predetermined size;
 - (b) when the size of the group of resource units is equal to the second predetermined size, determining the number of resource units moved from the group; and
 - (c) when the number of resource units moved from the group is equal to a predetermined number, indicating the group is equal to the predetermined size.
8. The method of claim 1 further including disabling the moving of resource
- 10 units when the group of resource units reaches the predetermined size.
9. A method of monitoring resource units in a group of resource units, comprising:
- (a) detecting size of a group of resource units; and
 - (b) calculating, based upon the thicknesses of at least one of the
- 15 resource units, when the group of resource units reaches a predetermined size after one or more resource units has been moved from the group.
10. The method of claim 9 wherein the group of resource units is a group of sheet articles in a mail insertion system.
- 20 11. The method of claim 9 further comprising detecting the size of the group of resource units prior to any resource units being moved from the group.
12. The method of claim 11 wherein detecting the size of the group of resource units includes providing a sensor for determining when the size of the group of resource units is less than a predetermined size.

13. The method of claim 9 wherein calculating when the group of resource units reaches a predetermined size further includes providing a device for measuring the thickness of the one or more resource units as the one or more resource units are moved from the group.
- 5 14. The method of claim 9 wherein calculating when the group of resource units reaches a predetermined size further includes:
 - (a) determining whether the number of resource units moved from the group is equal to a predetermined number; and
 - (b) when the number of resource units moved is equal to the
10 predetermined number, indicating that the size of the resource units is equal to the predetermined number.
15. The method of claim 9 further including disabling the moving of resource units when the group of resource units reaches the predetermined size.
16. A method for controlling removal of sheet articles from a stack,
15 comprising:
 - (a) detecting a level of a stack of sheet articles;
 - (b) removing one or more sheet articles from the stack;
 - (c) determining a thickness of at least one of the sheet articles removed from the stack;
 - 20 (d) indicating when the stack of sheet articles reaches a predetermined level and responsive to the determination of thickness in step (d); and
 - (e) selectively stopping removal of sheet articles from the stack.
17. The method of claim 16 wherein detecting the level of a stack of sheet
25 articles from a stack further includes providing a sensor for determining

when the level of the stack of sheet articles is less than a predetermined level.

18. The method of claim 16 wherein the sheet articles are removed by removing resource units from the bottom of the stack.
- 5 19. The method of claim 16 wherein indicating when the stack of sheet articles reaches a predetermined level includes:
 - (a) detecting when the level of the stack of sheet articles is equal to a second predetermined level;
 - (b) when the level of the stack of sheet articles is equal to the second
10 predetermined level, determining the number of sheet articles removed from the stack; and
 - (c) when the number of sheet articles removed from the stack is equal to the predetermined number, indicating the stack is equal to the predetermined level.
- 15 20. The method of claim 16 further including disabling the moving of sheet articles when the stack of sheet articles reaches the predetermined level.
21. A system for monitoring resource units in a stack, the system comprising:
 - (a) a container for containing a group of resource units;
 - (b) a device for measuring a thickness of one or more of the resource
20 units; and
 - (c) an indicator for indicating when the group of resource units reaches a predetermined size after one or more of the resource units has been moved from the group.
22. The system of claim 21 wherein the group of resource units is a group of
25 sheet articles in a mail insertion system.

23. The system of claim 21 further comprising a measurement detector for detecting the size of the group of resource units prior to any resource units being moved from the group.
24. The system of claim 23 wherein the measurement detector includes a sensor for determining whether the size of the group of resource units is less than a second predetermined size.
25. The system of claim 21 further including a counter for determining the number of resource units removed from the container.
26. The system of claim 25 further including:
- 10 (a) a mechanical device for removing resource units from the container; and
- (b) a controller for indicating to the counter the removal of one or more resource units.
27. The system of claim 21 wherein the indicator includes a display for providing a visual display of information to an operator.
- 15 28. The system of claim 27 wherein the display provides an indication to the operator when the group of resource units reaches the predetermined size.
29. A system for monitoring resource units in a group of resource units, comprising:
- 20 (a) a detector for detecting size of a group of resource units; and
- (b) a controller for calculating, based upon the thickness of at least one of the resource units, when the group of resource units reaches a predetermined size after one or more resource units has
- 25 been moved from the group.

30. The system of claim 29 wherein the group of resource units is a group of sheet articles in a mail insertion system.
31. The system of claim 29 wherein the measurement detector detects the size of resource units prior to any resource units being moved from the group.
- 5 32. The system of claim 29 wherein the measurement detector includes a sensor for determining whether the size of the group of resource units is less than a second predetermined size.
33. The system of claim 21 further including a counter for determining the number of resource units moved from the group.
- 10 34. The system of claim 33 further including:
- (a) a mechanical device for removing resource units from the container; and
 - (b) a means for indicating the removal of one or more resource units.
- 15 35. The system of claim 29 further including a display for providing a visual display of information to an operator.
36. The system of claim 35 wherein the display provides an indication to the operator when the group of resource units reaches the predetermined size.
- 20 37. A system for controlling removal of sheet articles from a stack, comprising:
- (a) a detector for detecting a level of a stack of sheet articles;
 - (b) a mechanical device for removing one or more sheet articles from the stack;

- (c) a device for determining a thickness of at least one of the sheet articles removed from the stack; and
- (d) an indicator for indicating, responsive to the determination of thickness by the device, when the stack of sheet articles reaches a predetermined level and selectively stopping removal of sheet articles from the stack.
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38. The system of claim 37 further including a counter for determining the number of resources removed from the stack of sheet articles.
39. The system of claim 37 further including a display for providing a visual display of information to an operator.
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40. The system of claim 39 wherein the display provides an indication to the operator when the stack of sheet articles reaches the predetermined level.
41. A computer program product for monitoring resource units in a stack, the computer program product comprising computer-executable instructions embodied in a computer-readable medium for performing steps comprising:
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- (a) detecting a size of resource units in a group of resource units;
- (b) calculating, based upon the thicknesses of at least one of the resource units, when the group of resource units reaches a predetermined size after one or more resource units has been moved from the group.
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42. The computer program product of claim 41 further comprising detecting the size of the group of resource units prior to any resource units being moved from the group.
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43. The computer program product of claim 41 wherein the calculating step further includes:

- (a) determining whether the number of resource units moved from the group is equal to a predetermined number; and
- 5 (b) indicating that the size of the resource units is equal to the predetermined number when the number of resource units moved is equal to the predetermined number.

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